

# Micro Small and Medium Enterprise (MSMEs) Ecosystem and Government Measures to Promote MSME Innovation in Indonesia

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## Abstract

Micro small and medium enterprises (MSMEs) have been known as a catalysator of social and economic growth due to its ability to increase employment rate and increase local economy. For these MSMEs, innovation activity is crucial, especially in this era of globally competitive environment where product life cycle is getting shorter. This paper aims to extend the discussion about the topic of MSMEs and innovation by providing empirical evidence from previous research the drivers and/or the barriers to innovate for MSMEs. Then, we describe the state of MSMEs innovation in Indonesia, specifically regarding the policies that have been implemented by Indonesian government to promote growth and innovation among MSMEs. Lastly, we investigate whether the policies are able to close the barrier gap of innovation among MSMEs in Indonesia, and provide recommendations of future actions that shall be carried out to support innovative MSMEs.

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## 1. Introduction

An innovative micro small and medium enterprises (MSMEs) are one of the elements needed for a national economy to grow and prosper. It is because MSMEs can drive the growth of local economy which may lead to the greater employment opportunity in the region. Furthermore, the total number of MSMEs can be so large (in certain countries, MSMEs accounted for more than 95% of total number of companies) which makes them a formidable force to increase national economy. A recent development in technology has change the overall landscape of

business environment. Companies, including MSMEs, must compete in this increasingly challenging business environment by keeping up with the trends and innovate. Micro small and medium enterprises (MSMEs) need to continuously introduce new products and/or processes, especially in an environment where product life cycle gets shorter, and they also need to exploit new market opportunities to stay abreast of competition (Strobel and Kratzer, 2017).

Studies have found that innovation could increase the likelihood of competitive advantage and market share growth (Pearce II and Michael, 2006; Smith, 1982 in Strobel and Kratzer, 2017). It is also known

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as a driver of a firm's profitability, survivability, and productivity (Lachenmaier and Rottmann, 2011; Rosenbusch et al., 2011 in Strobel and Kratzer, 2017). Failure to innovate might result in reduced competitiveness for a firm, and the business world has provide us many examples of companies that going bankrupt because of this reason.

In this paper, we define innovation as both technological and non-technological aspect of innovation activity, also including both incremental or radical type of innovation (Love and Roper, 2015). In a broad term, innovation means any new development in firms, which can include forging or re-engineering products to meet consumer demand, new processes to improve productivity, apply new marketing activity to increase sales, and organizing new management system to increase operational efficiency (Organisation for Economic Cooperation and Development (OECD), 2000).

Before delve deeper in a discussion about innovation among MSMEs in Indonesian context, it is important to acknowledge that MSMEs consist of firms with different type of business, ranging from small grocery shop in the traditional market to a relatively high technology firms (Callan & Guinet, 2000). For the high technology firms, innovation means new products or processes which were created with the intense use of science-based knowledge, and expensive research and development (R&D) process. However, most MSMEs do not have the access to formal R&D inputs and investments, hence, they innovate without using one. For the second type of MSMEs, they need more advice on non-financial matters. They mostly need government to close the knowledge gap between the vast amount of latest technology information (from universities, research institutes, customers, suppliers) available and their day-to-day business operation.

In Indonesia, MSMEs accounted for 99.99% of all businesses in Indonesia in 2017, with approximately 62.9 million MSMEs (The Ministry

of Cooperatives and Micro Small and Medium Businesses Republic of Indonesia, 2019). Hence, MSMEs play a significant role for the growth of Indonesian economy. Nevertheless, there has been less discussion on the topic of MSMEs and innovation within the sector, while in fact, the two words (MSMEs and innovation) are intricately connected. The aim of this paper is to present empirical evidence from previous research the drivers and/or the barriers to innovate for MSMEs. Then, we describe the state of MSMEs innovation in Indonesia, specifically about the policies that have been implemented by Indonesian government to promote growth and innovation among MSMEs. Lastly, we investigate whether the policies are able to close the barrier gap of innovation among MSMEs in Indonesia.

## **2. Literature Review**

There are ample of previous research which discuss the factors that may either enable or hinder the innovation performance of MSMEs. Most often, the papers discussed how degree of innovation is related to the size of firms such that small firms have advantages to innovate as they can conduct rapid decision making, have willingness to take risks, and more flexible in responding to market opportunities while large firms have advantages due to their wider access to finance and skills needed to innovate (Love and Roper, 2015). In short, the advantages of small firms are more related to behavioral aspects (e.g., flexibility, motivation, entrepreneurial dynamism) whilst for large firms it is more pertinent to material (e.g., finance and technological resources, economies of scale and scope) (Love and Roper, 2015). In general, those factors could be divided into two broad types which are external factors and internal factors (Strobel dan Kratzer, 2017)

### *2.1 External Factors*

Strobel and Kratzer (2012) subdivide the external factors into three different elements; demand, supply, and environment related. Supply obstacles are those factors that relate to technological information, raw materials, or capital needed for innovation. Demand obstacles consist of market limitation and customer needs, while environmental obstacles concern governmental regulations, bureaucracy, and other policy-related actions (Hadjimanolis, 1999).

In general, research and development (R&D) capability has been found to be the determinants of innovation as it is almost always strongly associated to innovation output (Crepon et al., 1998; Love et al., 2009; Roper et al., 2008 in Love and Roper, 2015). In larger firms, R&D generally organized within specialized department. For smaller firms, R&D activity is more often informal and opportunistic, and less likely to be organized within specific department (Blackburn, 2003; Griffith et al., 2003; Freel, 2005 in Love and Roper, 2015). The implication is that innovation in smaller firms is less dependent by R&D activity internally and more dependent on knowledge obtained from external source, such as through partnerships or spillovers (Ganotakis and Love, 2011; Piergiovanni et al., 1997 in Love and Roper, 2015).

Because of their size, MSMEs have limited access to financial resources required to conduct R&D activities. It is riskier to invest in R&D projects established by small firm than big firm because often times small firms have less competencies and experience complementary to R&D. Yet, it is critical for company to have internal and external finance available because innovation implore a large and uncertain sunk cost for company. In order to compensate this shortage, MSMEs could establish a linkage with other companies in each stages of production process.

It is known from previous research that regulatory framework and bureaucracy constitute one of the most significant obstacles during the innovation

process (Piatier, 1984; Hadjimanolis, 1999 in Strobel and Kratzer, 2017). Although globalization reduces the freedom of government policy responses, government still has power to encourage MSMEs to innovate through appropriate regulation, incentives, and organizational learning. For example, government supportive financial policies and intellectual property (IP) protection could accelerate R&D activities among MSMEs. At the same time, market entry regulation, wages policy, social insurance policy can have negative impact on innovation (Strobel and Kratzer, 2017). The government support financial programs might also fail to boost innovation if the regulation require complicated administrative procedures as it will hinder MSMEs willingness to.

## 2.2 Internal Factors

Following previous research, internal factors that could support or impede innovation activity for MSMEs including organizational structures, knowledge, human capital (i.e., skilled personnels). Organizational structure imply a task configuration within organization as well as written rules and procedures (Skivington and Daft, 1991 in Strobel and Kratzer, 2017). Furthermore, it is widely accepted that organization's knowledge is the most important source of firm's sustainable competitive advantage (Conner and Prahalad, 1996; Grant, 1996; Kogut and Zander, 1992; Nonaka et al., 2000; Zheng et al., 2010 in Strobel and Kratzer, 2017). Firm needs technical, marketing, and "integrative" competences in order to turn its innovative idea into profitable product. They also supposed to have knowledge on most recent scientific or technology development in a given field to increase their innovative capabilities. Regarding human capital, it is employees who have to fulfill innovative tasks within organization, including turn up with innovative ideas. Therefore, lack of skilled personnels might inhibit firms in creating efficient innovative teams and the firms might also suffer from the lack

of know how (Strobel and Kratzer, 2017).

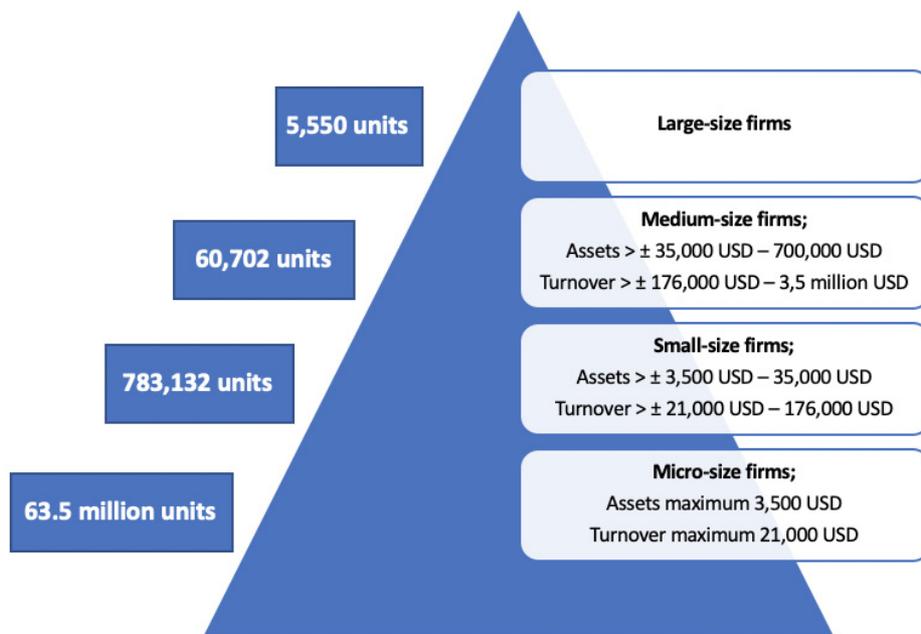
Apart from the three factors mentioned above, Strobel and Kratzer (2017) also pointed out that organizational culture plays important role in shaping firm’s innovative behavior. Certain norms, values, and behavior can facilitate information exchange and knowledge transfer within firms, which eventually lead to desired behaviors such as innovation (Hogan and Coote, 2014; Tellis et al., 2009 in Strobel and Kratzer, 2017). Several dimensions of organizational culture are team work fostering, importance of information flow in the innovative process, risk taking, tolerance for mistakes and easier communication within firms, improvisation in using the organisational knowledge (Amabile, 1988; Baker and Freeland, 1972; Binnewies et al., 2007; Caldwell and O’Reilly, 2003; García-Morales et al., 2011; Moorman and Miner, 1997; Sonnentag and Volmer, 2009 in Strobel and Kratzer, 2017). Another dimension of organizational culture mentioned by Hogan and Coote (2014) in Strobel and Kratzer (2017) is openness and flexibility which

facilitates idea generation and disparate thinking that enable problem identification and flexible implementation (Amabile, 1988; Howell and Boies, 2004; Khazanchi et al., 2007; Mumford et al., 2002 in Strobel and Kratzer, 2017).

### 3. Government Measures to Support MSMEs Innovation: case study of Indonesia

In similar fashion with other emerging countries, MSMEs are particularly imperative in supporting social inclusion and economic growth in Indonesia (OECD, 2018). It is said that MSMEs are the backbone of Indonesian economy. According to the Ministry of Cooperatives and SMEs Republic of Indonesia, MSMEs are estimated to account for 97% of domestic employment and 56% of business investment in Indonesia (OECD, 2018). Furthermore, more than 99% of total business enterprises in Indonesia comprises of MSMEs (see Figure 1).

**Figure 1.** Structure of Business Enterprises in Indonesia



Source: Ministry of Cooperatives and SMEs (2018) in (Indrawan, 2019)

However, despite the large number of MSMEs in Indonesia, only less than 0.1% of research and development (R&D) spending is conducted by MSMEs, far below the OECD average of 2.3% (The Jakarta Post, 2018), which implicates that the rate of innovation among MSMEs in Indonesia is still very low. Thus, government has a crucial role in stimulating innovation and providing the best ecosystem for MSMEs to flourish through policy actions. In Indonesia, the main government institution who is responsible improving MSMEs competitiveness is Ministry of Cooperatives and SME. Moreover, other ministries and government institutions also take part in the development of MSMEs, ranging from opening market access, financial access, standardization and certification of products and services, to giving training to upgrade the skills of MSMEs owner. Some important initiatives in the national levels to stimulate MSMEs development and innovation in Indonesia including:

### *3.1 Establishment of programs to increase access to finance*

One of the significant measures Indonesian government take to increase MSMEs access to finance is to require all banks to allocate 20% of their business loans to MSMEs. Furthermore, the government also established a program called people business credit (KUR). People business credit (KUR) is a government-backed loan program with a subsidized interest rates. This program is not necessarily intended to scale up innovation among MSMEs, although, its main objective is to widened MSMEs access to capital, particularly the micro-size firms. There are also other types of loans designed to fulfill capital needs of ultra-micro size entrepreneur, which are Mekaar and UMi. Both loan products are offered by non-bank financial institutions, but with a directive from Ministry of State Owned Enterprises (SOE). It suggests that those

programs are also part of government initiatives to scale up the business of ultra-micro entrepreneurs by giving them access to capital. However, these government-backed financing schemes might not be suitable for the “high-tech” firms as high-tech firms are more likely needed financing from venture capital in order to fund their R&D activities, and it is not yet widely supported by Indonesian government. As for export-oriented MSMEs, Indonesia Exim Bank also offered micro credit program called KURBE. In terms of the size, this program is rather small compared to other government-backed loan programs as it funded only 665 MSMEs by the end of 2018. Nevertheless, it is necessary to provide specific channel to provide financing for MSMEs who are eager to compete internationally as exporting also highly correlated with innovation and growth of MSMEs (Love and Roper, 2015). Other measures taken by government to develop innovation and provide alternative sources of finance including; offering grants and advisory services, taking regulatory measures to facilitate peer to peer lending, simplifying procedures for MSMEs to make initial public offering (IPOs), and introducing incentives for private equity investors. But the common fiscal incentives (e.g., R&D tax credits) are still underdeveloped.

### *3.2 MSMEs digitalization as a priority of government*

Digital economy offers enormous opportunity for MSMEs. It has been said that to develop and boost MSMEs sector, technology adoption and digitalization is a key (Baziad, 2015). If MSMEs are capable of doing their business digitally, it is expected that the yearly growth of Indonesian economy will increase even more (Deloitte Access Economics, 2015). Inadequate knowledge about or access to technologies also hinders the ability of MSMEs to keep abreast of innovation.

From a total of MSMEs in Indonesia, only 18%

of them are currently engaged in e-commerce through the use of website and social media to conduct their business (OECD, 2018). Hence, many government agencies have provided support in the form of programs aimed at increasing MSMEs involvement digitally. These programs include support related to human resources, production, general management, quality control, technology, industry clusters and MSME innovation centers. The biggest program to advance MSMEs presence in e-commerce is E-Commerce Roadmap<sup>3</sup> which mainly operated by Ministry of Communication and Informatics, together with Ministry of Cooperatives and SME. The main objective of the program is to facilitate MSMEs to be able to compete in a larger market. Other than that, the government also launched a collaboration with six online marketplaces operated in Indonesia to promote MSMEs in their platform (Association of Southeast Asian Nations (ASEAN), 2019).

There also other programs created by various ministries and government agencies which ultimately have the same goal of increasing MSMEs competitiveness, involvement, and presence digitally such as Certification, Copyright, and Trademark Registration Facilitation programme which aims to ensure the products and operational procedures of MSMEs are in compliance with international standards (Association of Southeast Asian Nations (ASEAN), 2019). However, in general, those programs were not yet effectively implemented because there is often an overlap between the institutions and each programs tends to have limited scope (Deloitte Access Economics, 2015). Thus, the government still needs to improve coordination and create strong partnership between agencies to improve the effectiveness of existing programs to support the development of MSMEs.

Furthermore, since businesses with advanced online capabilities are 17 times more likely to be

innovative (for example experiencing a major change in the way they did business last year) than offline businesses, increasing broadband access is also a matter that needs to be prioritized. Internet access in Indonesia is still relatively expensive and slow, thus, improving broadband access and service quality will encourage the adoption of digital technology by MSMEs and will improve the performance of existing technologies. Indonesian government has established The Indonesia Broadband Plan (IBP), a national plan to improve broadband infrastructure development, to increase the broadband requirement in Indonesia. Nevertheless, this plan should only be the first step in order to realized the digital economy in Indonesia.

### *3.3 Progress in the ease of doing business*

The government of Indonesia form a one-stop shops (OSS) or commonly known as the One Stop Integrated Service Center (PTSP), which can reduces the need for MSMEs to obtain permits from several local government agencies. This measure is an essential step in resolving administrative problems for MSMEs. Nonetheless, despite the efforts to provide one stop shop, the business license and permit system still remains fairly complex which contributes to Indonesia 144th position in the World Bank Doing Business indicator of “starting a business”. To overcome that problem, Indonesia government started to implement e-government system by developing online single submission system to centralize licensing procedures from all levels of government in one single website (OECD, 2018). Although it is relatively new initiatives and might takes some time before it becomes fully operational, this effort signals positive development of simplifying business process in Indonesia.

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3. They have three main programs which are Go Online Programme, One Million id. Domain Programme, and the 1000 Digital Start-up Programme

### 3.4 Workforce training

Workforce training falls under the responsibility of Ministry of Manpower and Transmigration. They operate 22 MSME Productivity Centres that deliver technical training to improve the productivity of MSMEs workforce. It has been mentioned in previous section that human capital has important role in improving and realizing innovative activity within firms. Nonetheless, the workforce training among MSMEs remain sporadic; only 5% of firms in Indonesia offers formal training to their personnels (OECD, 2018). In addition, Indonesia Exim Bank, collaborates with relevant ministries, also create a program to train export-oriented MSMEs called Coaching Program for New Exporters (CPNE) which offer trainings in production, management, and finance for small businesses. The knowledge transferred through this training mainly related to basic export knowledge such as packaging, export cycles, and export destination countries' requirement and logistics (Mufti, 2019).

Furthermore, state-owned enterprises in Indonesia is encouraged by Ministry of SOE to build "Rumah Kreatif BUMN"<sup>4</sup>. Rumah Kreatif BUMN (RKB) is built to assist MSMEs in increasing their competence, increase their marketing access, and facilitate MSMEs access to capital. One of the assistance provided by RKB is digitalization and e-commerce, in which MSMEs are given a training on listing their products in e-commerce website, using search engine optimization (SEO), and promoting their products via social media.

## 4. Discussion

From the previous section, it has been known that MSMEs sector accounts for more than three quarters of national employment in Indonesia, even

more than any OECD country. The share and contribution of MSMEs to Indonesian national economy is utterly enormous. Thus, it is only logical to expect that Indonesian government should prioritize the implementation of policies that are able to boost MSMEs development and innovation.

It is also important to acknowledge that MSMEs are heterogeneous, so the policies too must be targeted to meet the specific needs of each segments. For example, although more than 99% of all business enterprises in Indonesia are MSMEs, most of them are micro-size firms. This has implication to the type of regulations or policies needed by these firms. For the micro-size firms, access to finance is often the major problem. Therefore, the requirement of at least 20% of loans within banks is disbursed to MSMEs, as well as the establishment of people's business credit, might be a good policy to support their growth. However, it is only the initial step as our goals in the long term is to advance their innovation rate to increase their competitiveness in this globally competitive environment. Thus, it is also vital for government to start catering the needs of other segments of MSMEs, such as the export-oriented MSMEs and high-tech MSMEs.

For export-oriented MSMEs, the number of alternatives for export financing is still highly limited. Indonesia Exim Bank, a government institution mandated to provide export financing, can only provide finite amount of loan facility for export-oriented MSMEs, and loan facility provided by conventional banks is not friendly enough for these relatively new small exporter (Mufti, 2019). Therefore, Indonesian government should encourage conventional banks to provide financing for export-oriented MSMEs so that they can enter international market. It is also worth to mention that increasing the number of export-oriented MSMEs should be one of priority of Indonesian government as businesses who are able to compete

4. The English translation is "Creative House of State-Owned Enterprises"

internationally are highly likely to have innovation capability. For the “high tech” one, the government should increase the lack of well-functioning venture capital or seed finance markets to support their research and development efforts, or their investments in innovations (OECD, 2000).

Overall, regarding the access to finance, the type of financing available for MSMEs should vary according to their respective lifecycle (Berger and Udell, 2006 in Wellalage and Fernandez, 2019). In Indonesia, the finance program to close the financial gap are mostly intended to fulfill the needs of the early stage micro and small entrepreneurs. In other words, the country is not lacking in terms of alternative options to increase access to finance, especially for micro and small entrepreneur, as there are several government-backed loan programs. For these micro and small entrepreneurs, the government should focus more on programs or policies intended to accelerate their growth, not only focusing on providing access to capital. Thus, apart from fulfilling their financial needs, the policies should better address their non-financial innovation needs such as consulting services; how to recruit skilled personnel, awareness of innovative ideas and latest technology, and platform for exchanging knowledge and improving collaboration within MSMEs networks and clusters (Callan & Guinet, 2000). Also, access to capital is likely needed to fund another lifecycle of MSMEs (not only the early stage one), such as the high tech and export-oriented MSMEs. Furthermore, it is important to also expand MSMEs access to investment. In order to achieve digital MSMEs, it requires a combination of domestic and international sources of investment. The potential for MSMEs to develop will be reduced if government still provide barriers for accessing investment. Investment policies must be open to all sources and types of capital so that MSMEs in Indonesia will benefit from wider access to online microfinance tools.

Regarding the innovation activity itself, MSMEs have several advantages over large firms in innovative activity; they have less bureaucratic constraints to take a risky R&D, mainly because the decision is made by a small number of people, while in large firms the decision is often has to go through several organizational layers of resistance. However, in order to successfully innovate, it is not only the case of whether the firms are small or large in size, external environment (e.g., industry and environmental characteristics) will also influence capability of MSMEs to innovate. The linkages or network within industry can enhance the knowledge base of MSMEs which provide basis for innovation. The opportunity is greatest when MSMEs are operating in a strong innovation industry. Government should encourage or support the cooperation between MSMEs within industry by providing a platform in which MSMEs are given greater access to cooperate with other MSMEs, or better access to government-supported research centres including, for example, universities.

Indonesian government has also aware the benefit of increasing MSMEs involvement digitally. Thus, many government policies has been directed to accelerate the utilization of the digital economy - especially through increasing broadband access and through increasing coordination of existing government programs, access to investment, and facilitating access to new digital devices that are more affordable (Deloitte Access Economics, 2015). Expanding e-government services electronically is also part of the plan to increase digital presence. Government services through online platforms are far more effective and efficient. More online government services can build consumer confidence in future online activities and services, which may benefit MSMEs in the long term. It is also important to set the target for broadband deployments at a steady pace and follow regional and global trends, since broadbands are the platform for the digital

economy to work. For example, other countries are targeting a greater increase in national broadband (ie Korea 93%, Singapore 87% and Malaysia 73%), far higher than Indonesia's target of 30% (Deloitte Access Economics, 2015).

Lastly, in our efforts to established new policies to boost innovation capacity among MSMEs, we need to recognize that policies, especially the one which targeted for MSMEs, will require a lot of trial and error. The recipes for success in one country might not be applicable in another country. Thus, experimentation and learning are important elements before those policies could be succeeded.

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